Remarks

Applicants thank the Examiner for the careful examination of this application and the clear explanation of the rejections.

A Terminal Disclaimer overcomes the obviousness-type double patenting rejection.

Claim 41 requires a processor including an ALU and selected registers that are associated with the ALU.

Each selected register being formed of a pair of first and second registers. The ALU storing program data in one of the first and second registers for each selected register.

Claim 41 requires a context change signal lead formed on the semiconductor chip. The context change signal lead carries a signal having a first state indicating a context of a first set of program instructions operating on first data stored in the selected registers. The context change signal lead carries a second state indicating a context of a second set of program instructions operating on second data stored in the selected registers.

Claim 41 requires context switching circuitry formed on the semiconductor chip. The context switching circuitry is connected to the selected registers and the context change signal lead. The context change switching circuitry connects one of the pair of first and second registers, for each selected register, to hold the first data in response to the first state of the context change signal. The context change switching circuitry connects the other of the pair of first and second registers, for each selected

register, to hold the second data in response to the second state of the context change signal.

In contrast, US 4,484,274 to Berenbaum discloses a memory 72 storing a number of processes in association with process control blocks (PCB) of information. The process control block contains all of the switchable process information collected into compact form for ease of movement to and from the internal registers. See Column 4, lines 58-65.

When a process switch operation is called for, main control PLA 12 performs operations which copy the data in the PC, the SP, and the PSW registers into the PCB (in memory) of the currently running process.

Present claim 41 requires selected registers formed of pairs of registers, a context change signal, and context switching circuitry. The movement of data from the PC, SP, and PSW to the PCB in memory 72 in the Berebaum patent fails to teach or disclose the presently claimed pairs of registers for each selected register, the change signal, or the switching circuitry.

US 4,554,413 to Pinede is cited for disclosing a microprocessor 502 connected to the audio circuitry of a telephone.

This fails to teach or suggest the presently claimed pairs of registers for each selected register, the change signal, or the switching circuitry.

US 4,916,651 to Gill is cited for disclosing a floating point processor that contains multiplexers to chose between registers 32, 34, multiplier 48, ALU 54, and registers operating on clock edges.

By citation against only the depending claims, the rejection implies that this reference fails to teach or suggest the presently claimed pairs of registers for each selected register, the change signal, or the switching circuitry.

US 4,217,638 to Namimoto is cited for teaching context switch circuitry changing the flow of data being received from the first register to the second register.
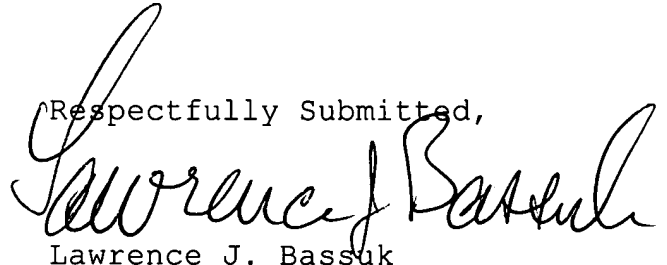
The Abstract of this patent says that a plurality of groups of memory units in the CPU are to be applied as a general register set. The groups of memory units are provided in a number that is equal to the number of interrupt programs and each group has been previously supplied with information on the individual interrupt programs.

By citation against only the depending claims, the rejection implies that this reference fails to teach or suggest the presently claimed pairs of registers for each selected register, the change signal, or the switching circuitry.

As requested, applicants enclose a copy of this amendment on an IBM formatted 3½ inch floppy disk.

The application is in allowable form and the claims distinguish over the cited references. Applicants respectfully request reconsideration or further examination of this application.

Respectfully Submitted,

Lawrence J. Bassuk
Reg. No. 29,043
Attorney for Applicant

Texas Instruments Incorporated
P. O. Box 655474, MS 3999
Dallas, Texas 75265
972-917-5458